## **SIEMENS**

Data sheet 3RT1064-6AB36



power contactor, AC-3e/AC-3 225 A, 110 kW / 400 V AC (50-60 Hz) / DC Uc: 23-26 V 3-pole, auxiliary contacts 2 NO + 2 NC drive: conventional main circuit: busbar control and auxiliary circuit: screw terminal

product brand name	SIRIUS
product designation	Power contactor
product type designation	3RT1
General technical data	
size of contactor	S10
product extension	
<ul> <li>function module for communication</li> </ul>	No
auxiliary switch	Yes
power loss [W] for rated value of the current	
<ul> <li>at AC in hot operating state</li> </ul>	51 W
<ul> <li>at AC in hot operating state per pole</li> </ul>	17 W
without load current share typical	7.4 W
insulation voltage	
<ul> <li>of main circuit with degree of pollution 3 rated value</li> </ul>	1 000 V
of auxiliary circuit with degree of pollution 3 rated value	500 V
surge voltage resistance	
of main circuit rated value	8 kV
of auxiliary circuit rated value	6 kV
maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1	690 V
shock resistance at rectangular impulse	
• at AC	8,5g / 5 ms, 4,2g / 10 ms
• at DC	8,5g / 5 ms, 4,2g / 10 ms
shock resistance with sine pulse	
• at AC	13,4g / 5 ms, 6,5g / 10 ms
• at DC	13,4g / 5 ms, 6,5g / 10 ms
mechanical service life (operating cycles)	
of contactor typical	10 000 000
<ul> <li>of the contactor with added electronically optimized auxiliary switch block typical</li> </ul>	5 000 000
of the contactor with added auxiliary switch block typical	10 000 000
reference code according to IEC 81346-2	Q
Substance Prohibitance (Date)	05/01/2012
Ambient conditions	
installation altitude at height above sea level maximum	2 000 m
ambient temperature	
during operation	-25 +60 °C
during storage	-55 +80 °C
relative humidity minimum	10 %
relative humidity at 55 °C according to IEC 60068-2-30 maximum	95 %

ain circuit	
number of poles for main current circuit	3
number of NO contacts for main contacts	3
operating voltage	
<ul> <li>at AC-3 rated value maximum</li> </ul>	1 000 V
• at AC-3e rated value maximum	1 000 V
operational current	
<ul> <li>at AC-1 at 400 V at ambient temperature 40 °C rated value</li> </ul>	275 A
• at AC-1	
— up to 690 V at ambient temperature 40 $^{\circ}\text{C}$ rated value	275 A
— up to 690 V at ambient temperature 60 $^{\circ}\text{C}$ rated value	250 A
— up to 1000 V at ambient temperature 40 $^{\circ}\text{C}$ rated value	100 A
— up to 1000 V at ambient temperature 60 $^{\circ}\text{C}$ rated value	100 A
• at AC-3	
— at 400 V rated value	225 A
— at 500 V rated value	225 A
— at 690 V rated value	225 A
— at 1000 V rated value	68 A
• at AC-3e	
— at 400 V rated value	225 A
— at 500 V rated value	225 A
— at 690 V rated value	225 A
— at 1000 V rated value	68 A
• at AC-4 at 400 V rated value	195 A
• at AC-5a up to 690 V rated value	242 A
at AC-5b up to 400 V rated value	186 A
• at AC-6a	
— up to 230 V for current peak value n=20 rated value	225 A
— up to 400 V for current peak value n=20 rated value	225 A
— up to 500 V for current peak value n=20 rated value	225 A
— up to 690 V for current peak value n=20 rated value	225 A
— up to 1000 V for current peak value n=20 rated	68 A
value	
• at AC-6a	
— up to 230 V for current peak value n=30 rated value	172 A
— up to 400 V for current peak value n=30 rated value	172 A
— up to 500 V for current peak value n=30 rated value	172 A
— up to 690 V for current peak value n=30 rated value	172 A
— up to 1000 V for current peak value n=30 rated value	68 A
minimum cross-section in main circuit at maximum AC-1 rated value	150 mm²
operational current for approx. 200000 operating cycles at AC-4	
• at 400 V rated value	96 A
at 690 V rated value	85 A
operational current	
• at 1 current path at DC-1	
— at 24 V rated value	200 A
— at 60 V rated value	200 A
— at 110 V rated value	18 A
— at 220 V rated value	3.4 A
— at 440 V rated value	0.8 A
— at 600 V rated value	0.5 A
<ul> <li>with 2 current paths in series at DC-1</li> </ul>	
— at 24 V rated value	200 A
— at 60 V rated value	200 A
— at 60 v rated value	

1000.77	00.4
— at 220 V rated value	20 A
— at 440 V rated value	3.2 A
— at 600 V rated value	1.6 A
with 3 current paths in series at DC-1	
— at 24 V rated value	200 A
— at 60 V rated value	200 A
— at 110 V rated value	200 A
— at 220 V rated value	200 A
— at 440 V rated value	11 A
— at 600 V rated value	4 A
at 1 current path at DC-3 at DC-5	
— at 24 V rated value	200 A
— at 60 V rated value	7.5 A
— at 220 V rated value	0.6 A
— at 440 V rated value	0.17 A
— at 600 V rated value	0.12 A
<ul> <li>with 2 current paths in series at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	200 A
— at 60 V rated value	200 A
— at 110 V rated value	200 A
— at 220 V rated value	2.5 A
— at 440 V rated value	0.65 A
— at 600 V rated value	0.37 A
<ul> <li>with 3 current paths in series at DC-3 at DC-5</li> </ul>	
— at 24 V rated value	200 A
— at 60 V rated value	200 A
— at 110 V rated value	200 A
— at 220 V rated value	200 A
— at 440 V rated value	1.4 A
— at 600 V rated value	0.75 A
operating power	
• at AC-3	
— at 230 V rated value	55 kW
— at 400 V rated value	110 kW
— at 500 V rated value	160 kW
— at 690 V rated value	200 kW
— at 1000 V rated value	90 kW
• at AC-3e	
— at 230 V rated value	55 kW
— at 400 V rated value	110 kW
— at 500 V rated value	160 kW
— at 690 V rated value	200 kW
— at 1000 V rated value	90 kW
operating power for approx. 200000 operating cycles at AC-	
4	
• at 400 V rated value	54 kW
at 690 V rated value	82 kW
operating apparent power at AC-6a	
<ul> <li>up to 230 V for current peak value n=20 rated value</li> </ul>	90 000 kVA
<ul> <li>up to 400 V for current peak value n=20 rated value</li> </ul>	150 000 VA
<ul> <li>up to 500 V for current peak value n=20 rated value</li> </ul>	190 000 VA
<ul> <li>up to 690 V for current peak value n=20 rated value</li> </ul>	260 000 VA
• up to 1000 V for current peak value n=20 rated value	110 000 VA
operating apparent power at AC-6a	
• up to 230 V for current peak value n=30 rated value	60 000 VA
• up to 400 V for current peak value n=30 rated value	110 000 VA
• up to 500 V for current peak value n=30 rated value	140 000 VA
• up to 690 V for current peak value n=30 rated value	200 000 VA
• up to 1000 V for current peak value n=30 rated value	110 000 VA
short-time withstand current in cold operating state up to	
40 °C	

<ul> <li>limited to 1 s switching at zero current maximum</li> </ul>	4 000 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 5 s switching at zero current maximum</li> </ul>	2 807 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 10 s switching at zero current maximum</li> </ul>	2 082 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 30 s switching at zero current maximum</li> </ul>	1 397 A; Use minimum cross-section acc. to AC-1 rated value
<ul> <li>limited to 60 s switching at zero current maximum</li> </ul>	1 144 A; Use minimum cross-section acc. to AC-1 rated value
no-load switching frequency	
• at AC	2 000 1/h
• at DC	2 000 1/h
operating frequency	
• at AC-1 maximum	750 1/h
• at AC-2 maximum	250 1/h
• at AC-3 maximum	500 1/h
• at AC-3e maximum	500 1/h
• at AC-4 maximum	130 1/h
Control circuit/ Control	
type of voltage of the control supply voltage	AC/DC
control supply voltage at AC	
at 50 Hz rated value	23 26 V
• at 60 Hz rated value	23 26 V
control supply voltage at DC	
• rated value	23 26 V
operating range factor control supply voltage rated value of magnet coil at DC	
• initial value	0.8
• full-scale value	1.1
operating range factor control supply voltage rated value of magnet coil at AC	
● at 50 Hz	0.8 1.1
● at 60 Hz	0.8 1.1
design of the surge suppressor	with varistor
apparent pick-up power	
<ul> <li>at minimum rated control supply voltage at AC</li> </ul>	
— at 50 Hz	490 VA
— at 60 Hz	490 VA
<ul> <li>at maximum rated control supply voltage at AC</li> </ul>	
— at 60 Hz	590 VA
— at 50 Hz	590 VA
apparent pick-up power of magnet coil at AC	
● at 50 Hz	590 VA
● at 60 Hz	590 VA
inductive power factor with closing power of the coil	
at 50 Hz	0.9
at 60 Hz	0.9
apparent holding power	
<ul> <li>at minimum rated control supply voltage at DC</li> </ul>	6.1 VA
at maximum rated control supply voltage at DC	7.4 VA
apparent holding power	
<ul> <li>at minimum rated control supply voltage at AC</li> </ul>	
— at 50 Hz	5.6 VA
— at 60 Hz	5.6 VA
<ul> <li>at maximum rated control supply voltage at AC</li> </ul>	
— at 50 Hz	6.7 VA
— at 60 Hz	6.7 VA
apparent holding power of magnet coil at AC	
• at 50 Hz	6.7 VA
• at 60 Hz	6.7 VA
inductive power factor with the holding power of the coil	
• at 50 Hz	0.9
• at 60 Hz	0.9
closing power of magnet coil at DC	650 W
holding power of magnet coil at DC	7.4 W

closing delay			
• at AC	30 95 ms		
• at DC	30 95 ms		
opening delay			
• at AC	40 80 ms		
• at DC	40 80 ms		
arcing time	10 15 ms		
control version of the switch operating mechanism	Standard A1 - A2		
Auxiliary circuit			
number of NC contacts for auxiliary contacts instantaneous contact	2		
number of NO contacts for auxiliary contacts instantaneous contact	2		
operational current at AC-12 maximum	10 A		
operational current at AC-15			
at 230 V rated value	6 A		
at 400 V rated value	3 A		
at 500 V rated value	2 A		
at 690 V rated value	1A		
operational current at DC-12			
at 24 V rated value	10 A		
at 24 V rated value     at 48 V rated value	6 A		
at 48 V rated value     at 60 V rated value	6 A		
at 110 V rated value     at 125 V rated value	3 A		
at 125 V rated value	2 A		
at 220 V rated value	1A		
at 600 V rated value	0.15 A		
operational current at DC-13			
at 24 V rated value	10 A		
at 48 V rated value	2 A		
<ul> <li>at 60 V rated value</li> </ul>	2 A		
<ul> <li>at 110 V rated value</li> </ul>	1 A		
• at 125 V rated value	0.9 A		
• at 220 V rated value	0.3 A		
at 600 V rated value	0.1 A		
contact reliability of auxiliary contacts	1 faulty switching per 100 million (17 V, 1 mA)		
UL/CSA ratings			
full-load current (FLA) for 3-phase AC motor			
• at 480 V rated value	180 A		
• at 600 V rated value	192 A		
yielded mechanical performance [hp]			
• for 3-phase AC motor			
— at 200/208 V rated value	60 hp		
— at 220/230 V rated value	75 hp		
— at 460/480 V rated value	150 hp		
— at 575/600 V rated value	200 hp		
contact rating of auxiliary contacts according to UL	A600 / Q600		
Short-circuit protection			
design of the fuse link			
for short-circuit protection of the main circuit			
with type of coordination 1 required	gG: 500 A (690 V, 100 kA)		
with type of coordination 1 required  - with type of assignment 2 required	gG: 400 A (690 V, 100 kA), aM: 315 A (690 V, 50 kA), BS88: 400 A (415 V, 50		
	kA)		
for short-circuit protection of the auxiliary switch required  Installation/ mounting/ dimensions	gG: 10 A (500 V, 1 kA)		
Installation/ mounting/ dimensions	with vertical mounting surface 1/00° retatable with vertical recenting surface		
mounting position	with vertical mounting surface +/-90° rotatable, with vertical mounting surface +/- 22.5° tiltable to the front and back		
fastening method	screw fixing		
side-by-side mounting	Yes		
height	210 mm		
width	145 mm		
depth	202 mm		
and the second s			

required spacing			
<ul><li>with side-by-side mounting</li></ul>			
— forwards	20 mm		
— upwards	10 mm		
— downwards	10 mm		
— at the side	0 mm		
<ul> <li>for grounded parts</li> </ul>			
— forwards	20 mm		
— upwards	10 mm		
— at the side	10 mm		
— downwards	10 mm		
• for live parts			
— forwards	20 mm		
— upwards	10 mm		
— downwards	10 mm		
— at the side	10 mm		
Connections/ Terminals			
type of electrical connection			
for main current circuit	Connection bar		
<ul> <li>for auxiliary and control circuit</li> </ul>	screw-type terminals		
<ul> <li>at contactor for auxiliary contacts</li> </ul>	Screw-type terminals		
of magnet coil	Screw-type terminals		
width of connection bar	25 mm		
thickness of connection bar	6 mm		
diameter of holes	11 mm		
number of holes	1		
connectable conductor cross-section for main contacts			
• stranded	70 240 mm²		
connectable conductor cross-section for auxiliary contacts			
<ul> <li>solid or stranded</li> </ul>	0.5 4 mm²		
finely stranded with core end processing	0.5 2.5 mm²		
type of connectable conductor cross-sections			
for auxiliary contacts			
— solid	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²), max. 2x (0.75 4 mm²)		
— solid or stranded	2x (0,5 1,5 mm²), 2x (0,75 2,5 mm²), max. 2x (0,75 4 mm²)		
<ul> <li>finely stranded with core end processing</li> </ul>	2x (0.5 1.5 mm²), 2x (0.75 2.5 mm²)		
for AWG cables for auxiliary contacts	2x (20 16), 2x (18 14), 1x 12		
AWG number as coded connectable conductor cross section			
for auxiliary contacts	18 14		
Safety related data			
product function			
<ul> <li>mirror contact according to IEC 60947-4-1</li> </ul>	Yes		
<ul> <li>positively driven operation according to IEC 60947-5-1</li> </ul>	No		
B10 value with high demand rate according to SN 31920	1 000 000		
T1 value for proof test interval or service life according to IEC 61508	20 a		
protection class IP on the front according to IEC 60529	IP00; IP20 with box terminal/cover		
touch protection on the front according to IEC 60529	finger-safe, for vertical contact from the front with box terminal/cover		
Certificates/ approvals			
General Product Approval			

## General Product Approval





Confirmation



<u>KC</u>



Functional Safety/Safety of Ma-Decla	ration of Conformity	Test Certificates
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Type Examination Certificate





Type Test Certificates/Test Report

Special Test Certificate

**Test Certificates** 

Marine / Shipping

**Miscellaneous** 











other				Railway	
Confirmation	Miscellaneous	Confirmation	Miscellaneous	Special Test Certific- ate	Vibration and Shock

## Environment

Environmental Confirmations

## Further information

Siemens has decided to exit the Russian market (see here).

https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

Information- and Downloadcenter (Catalogs, Brochures,...)

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RT1064-6AB36

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RT1064-6AB36

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

https://support.industry.siemens.com/cs/ww/en/ps/3RT1064-6AB36

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

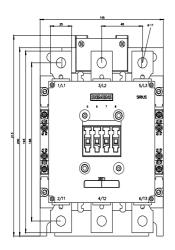
http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RT1064-6AB36&lang=en

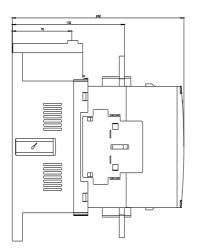
Characteristic: Tripping characteristics,  $I^2t$ , Let-through current

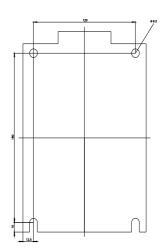
https://support.industry.siemens.com/cs/ww/en/ps/3RT1064-6AB36/char

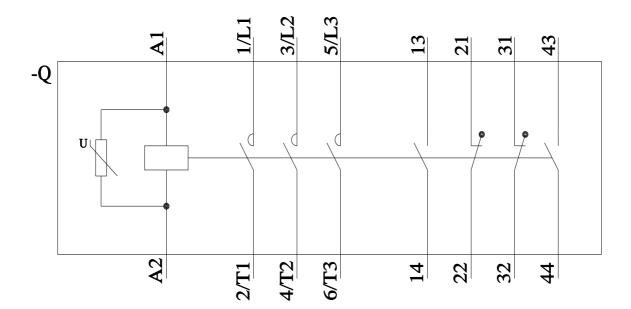
Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RT1064-6AB36&objecttype=14&gridview=view1









last modified:

8/15/2023

